



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/687,089

10/17/2003

Chi-Liang Lo

9095

7590

03/13/2007

Lo Chi-Liang
P.O. BOX 2103
Taichung, R.O.C.
TAIWAN

EXAMINER

HUNG, STEPHEN C

ART UNIT

PAPER NUMBER

2615

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

03/13/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/687,089

Applicant(s)

LO, CHI-LIANG

Examiner

Stephen C. Hung

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This office action is in response to application filed on 10/17/2003. Claims 1-2 are pending and have been examined.

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the city and either state or foreign country of residence of each inventor. The residence information may be provided on either an application data sheet or supplemental oath or declaration.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Beckert et al. (5,794,164)** in view of **Shu et al. (US 7,007,118 B2)**.

Consider **claim 1**, Beckert teaches a digital audio assembly (Figure 1) comprising:

a digital signal processor (Figure 5, DSP 80) mounted in the digital audio assembly (Figure 1);

a digital analog converter (Figure 7, A/D, D/A 432) mounted in the digital audio assembly (Figure 1);

a base member (Figure 1, base unit 46) including a front panel ("front of the base unit 46," column 4, lines 44-45) and a rear panel opposite (Figure 1, back of the base unit 46 in which Antenna 34, speakers 30, Diagnostic Interface 28, Security Sensors 26, and monitor 24 are connected to) to the front panel;

a secure digital memory card (SD card) socket (Figure 1, PC card sockets 44) mounted in the front panel ("front of the base unit 46," column 4, lines 44-45) and electrically connected to the DSP (Figure 5, DSP 80), the SD card socket adapted to receive a SD card ("A dual PC card socket 44 is provided to support 2-type II or 1-type III PC cards. Such cards might be configured as extra memory," column 9, lines 38-40) such that the digital audio assembly (Figure 1) of the present invention can read and play the digital signals that are saved in the SD card;

Art Unit: 2615

a liquid crystal display (Figure 5, display 54 and "the display 54 is preferably a back lit LCD," column 4, lines 57-58) mounted in the front panel ("front of the base unit 46," column 4, lines 44-45) and electrically connected to the DSP (Figure 5, DSP 80);

multiple functional switches (Figure 1, keypad 52) respectively mounted in the front panel ("front of the base unit 46," column 4, lines 44-45) and electrically connected to the DSP (Figure 5, DSP 80) for user to control the digital audio assembly (Figure 1);

a sound-source ("external tape drive, portable tape player or some other external sound sources," column 6, lines 34-35) input port (Figure 4, AUX Stereo Input Jack 218) mounted in the front panel ("front of the base unit 46," column 4, lines 44-45) and electrically connected to the DAC (Figure 7, A/D, D/A 432); and

a sound-effect ("an alarm," column 10, line 61) input/output port (Figure 7, analog I/O) mounted in the rear panel ("security sensors 26 are connected to analog inputs 430," column 10, lines 59-60) and electrically connected to the DAC (Figure 7, A/D, D/A 432).

a socket (Figure 1, floppy disk drive 40) mounted in the front panel ("front of the base unit 46," column 4, lines 44-45) and electrically connected to the DSP (Figure 5, DSP 80), the socket (Figure 1, floppy disk drive 40) adapted to be connected to extra media ("floppy diskette," column 3, line 27) and the digital audio assembly (Figure 1) reading

Art Unit: 2615

the digital signals in the extra media ("retrieve data or programs from the storage device . . . floppy diskette," column 3, lines 25-26);

However, although Beckert does not explicitly teach that the socket is a USB socket.

In the same field of endeavor, Shu teaches a universal serial bus socket ("USB communication port," column 3, lines 43-46 and Figure 1, USB communication port 153) mounted in the front panel (Figure 1, control panel 14) and electrically connected to the DSP (Figure 2, CPU 21), the USB socket (Figure 1, USB communication port 153) adapted to be connected to extra media and the digital audio assembly (Figure 1) reading the digital signals in the extra media via the USB connection;

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to replace the floppy disk drive of Beckert with the USB port of Shu. Patent Application Publication (US 2003/0028629 A1) provides the motivation for doing this, stating that "floppy disks, however, are rapidly becoming obsolete" (Amro, paragraph [0002]).

In addition, it is well known in the art that a USB port accepts a USB flash drive, which contains a more significant amount of memory than a floppy diskette for storing data. USB flash drives are designed to be more slim, compact, and portable than floppy diskettes, as well as being more damage-proof.

Consider **claim 2**, the modified device of Beckert teaches the digital audio assembly (Beckert, Figure 1) as claimed in claim 1 further comprising an interface port (Beckert, Figure 8, network connection port 510) electrically connected to the DSP (Beckert, Figure 5, DSP 80) and adapted to be electrically connected to a PC (Beckert, Figure 8, client 512) such that the user can control the digital audio assembly via the PC (Beckert, "client computing units 512 can request certain entertainment from the server computing unit 504," column 13, lines 14-15), thereby the digital audio assembly (Beckert, Figure 1) reads the digital signals from the extra media via the USB connection (Shu, Figure 1, USB communication port 153) and transmits the digital signals from the extra media to the PC via the interface port such that PC can save the digital signals therein (Beckert, "the client processing unit 512 can receive data and programs from the central storage device 506 via server computing unit 504," column 12, line 67 to column 13, line 2).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Beckert et al. (US 2001/0001319 A1) teaches a vehicle computer system with open platform architecture.

Qureshey et al. (US 2002/0002039 A1) teaches a network enabled audio device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen C. Hung whose telephone number is (571)270-1457. The examiner can normally be reached on M-Th 7:30am-5pm, Every other Friday 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571)272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S.H. *S.H.*
5 March 2007



DANIEL SWERDLOW
PRIMARY PATENT EXAMINER